

PFAS Policy and Regulations Subgroup

FINAL Meeting Minutes

WebEx, VDH Office of Drinking Water, 109 Governor Street 6th Floor, Richmond, VA 23219

11:00 am – 12:00 pm, December 14, 2020

1. Instructions for using Webex
2. Welcome and meeting overview:
Nelson Daniel, the Office of Drinking Water's (ODW) Policy and Program Director, started the meeting at 11:00 am. The presentation he used for the meeting follows the minutes.
3. Member Introduction:
Meeting participants, including subgroup members and others in attendance introduced themselves. The following members of the subgroup were present:
 - Nelson Daniel – ODW
 - Phillip Musegass – Potomac Riverkeeper Network
 - Andrea Wortzel – Mission H2O
 - Mike McEvoy – Western Virginia Water Authority,
 - Jamie Hedges – Fairfax Water
 - Jessica Edwards – Loudoun Water
 - John Aulbach – Aqua Virginia
 - Jillian Terhune – City of Norfolk
 - Paul Nyffeler – Chem Law
 - Russ Navratil – Virginia Chapter, American Water Works Association
 - Wendy Eikenberry – Augusta County Service Authority

Others that were in attendance included:

 - Bob Edelman- ODW
 - Tony Singh- ODW
 - Christine Latino - ODW
 - Carroll Courtenay – Southern Environmental Law Center
 - Emily Francis – New Dominion Solutions, LLC
 - David Liu – NASA Goddard Space Flight Center / Wallops Flight Facility
 - Joel Thompson – Fairfax Water;
 - Katie Krueger – Hampton Roads Planning District Commission
 - T J Meyer – NASA Goddard Space Flight Center / Wallops Flight Facility
 - Sarah Vogel song – Virginia Mercury,
 - Morgan Guthridge –Guthridge Associates
 - Robert Sok – Tetra Tech, Inc.
4. Subgroup objectives, milestones, logistics, and ground rules

The subgroup's overall objective, based on the enabling legislation (House Bill 586) is to evaluate existing approaches to regulating PFAS including regulatory approaches adopted by other states and the federal government.

Nelson said that ODW staff are working on setting up a space on Google Drive that subgroup members will have access to so they can post and review files. He will provide more information when it is available.

5. Overview of information that we have
 - a. From EPA
 - b. From states

Nelson reviewed information from other states using the presentation that follows the minutes. He noted that the map (slide 7) is not up to date – some states have imposed more stringent limitations than are shown. Subgroup members recommended that ODW update the map because it is a good visual reference for what is happening in different states.

Nelson highlighted two sources of information, the Association of State Drinking Water Administrator's (ASDWA) *State CEC Rule Development & Management Strategies Toolkit* and the Environmental Council of the States (ECOS) *Processes & Considerations for Setting State PFAS Standards*, which may be useful in considering other states' approaches to establishing limits on PFAS in drinking water. He will email copies to subgroup members following the meeting.

6. Research needs and assignments
 - a. What information to collect

Regarding slide 24, a subgroup member asked, what do you see as our research needs and how do we tackle this? Nelson suggested the subgroup needs to see the enabling statute/law and the resulting regulations from other states to understand how their standards came to be and work; also to look for other sources of information related to their processes for developing standards.

- b. Sources of information

Nelson compiled information from internet-based research. He also used information that ASDWA compiled and posted on its website. Some subgroup members said they have contacts in other states and will check with them.

- c. Where to compile, store, share

Proposed to use Google Drive to share data. Until ODW provides further guidance, if members have data, please send it to Nelson via email and he will save it on Drive.

List of States that have established standards for PFAS and who will be researching each one:

California: Andrea Wortzel
Colorado: Jessica Edwards
Connecticut: Jillian Terhune
Maryland: Phillip Musegaas
Massachusetts: Jamie Hedges
Michigan: Mike McEvoy
Minnesota: Wendy Eikenberry (will contact laboratories ~ limits)
New Hampshire: Paul Nyffeler
New Jersey: John Aulbach
New York: Phillip Musegaas
North Carolina: John Aulbach
Vermont: Russ Navratil

Nelson reminded subgroup members that the work we do and records we compile are public records and will be available to the public if requested. Nelson will send the presentation, ASDWA guidance, and ECOS paper to subgroup members by email. He will also post a brief summary (meeting minutes) and the presentation on Town Hall.

Phillip Musegaas will work up a summary of current EPA activities related to PFAS in drinking water and what the Biden administration proposes to do on the issue. He will also summarize activities in Maryland related to development of MCLs (MD has not established MCLs for any PFAS, but there is interest/activity).

Nelson asked subgroup members to also look for information about what other states did in terms of funding to support the research and development of MCL's.

A member asked if there is overlap between the work the Policy Subgroup is doing and the topics other subgroups are focusing on. Nelson noted that other subgroups may be interested in information about funding and said that we can share research with the other subgroups.

Nelson will look and see what other resources are available and will compile the data that is collected.

Timeframe and deliverables for the next meeting:

The PFAS Workgroup will meet again on January 19. Nelson would like for the subgroup to meet the week prior to the PFAS Workgroup meeting to evaluate the status of research and discuss any findings members have. The objective is to be able to make a full report, and possibly recommendations to the PFAS Workgroup by its April meeting.

To do this, subgroup members will need to complete and compile their research by February or March.

For the Subgroup's January meeting, please be prepared to provide a summary of where you are with respect to your research and what you have learned. Also discuss, with input from the subgroup members, additional research you need to do and how you expect to proceed.

7. Public comments – Nelson provided an opportunity for anyone participating in the meeting to make a comment. No one commented.
8. Schedule next meeting, conclusion

For a meeting during the week of January 11, one member expressed a preference for Thursday, January 14, or Friday, January 15. The 2021 General Assembly session convenes on Wednesday, January 13. Nelson will create a Doodle poll for members to provide availability and circulate shortly. Information about the next meeting will be shared with Subgroup members by email and will be posted on Town Hall.

Nelson concluded the meeting at approximately 12:00 pm.

PFAS Policy and Regulations Subgroup

Draft Meeting Agenda

WebEx, Office of Drinking Water, 109 Governor Street 6th Floor, Richmond, VA 23219

11:00 am, December 14, 2020

1 hour (appx)

1. Instructions for using Webex
2. Welcome and meeting overview
3. Member Introduction
4. Subgroup objectives, milestones, logistics, and ground rules
5. Overview of information that we have
 - a. From EPA
 - b. From states
6. Research needs and assignments
 - a. What information to collect
 - b. Sources of information
 - c. Where to compile, store, share
7. Deliverables for the next meeting
8. Public comments
9. Schedule next meeting, conclusion

Next meeting in January 2021 (tentatively, week of January 11, 2021)

PFAS Policy and Regulations Subgroup

Nelson Daniel

Virginia Department of Health
December 14, 2020



PFAS Policy Subgroup Meeting Overview

Instructions for using Webex

Member Introduction

Subgroup objectives, milestones, logistics, and ground rules

Overview of information that we have

Research needs and assignments

Deliverables for the next meeting

Public comments

Schedule next meeting, conclusion

2

Ground Rule/Housekeeping Items

- Technology issue
- Active participation
- Suggestions/constructive comments
- FOIA requirements

Overview of information that we have

From EPA

From states

Research needs and assignments

What information to collect

Sources of information

Where to compile, store, share

Subgroup Member Introductions

- Phillip Musegaas (Potomac Riverkeeper Network)
- Paul Nyffeler (Chem-Law)
- Jamie Hedges (Fairfax Water)
- Jillian Terhune (City of Norfolk)
- Wendy Eikenberry (Augusta County Service Authority)

Subgroup Member Introductions

- Mark Estes (Halifax County Service Authority)
- John Aulbach (Aqua Virginia)
- Russ Navratil (VA AWWA)
- Jessica Edwards (Loudoun Water)
- Mike McEvoy (Western Virginia Water Authority)
- Andrea Wortzel (Mission H2O)
- Steve Risotto (ACC)
- Nelson Daniel (VDH Office of Drinking Water) - VDH Lead*

Virginia PFAS Workgroup - Objectives

Determine the occurrence of PFAS in drinking water throughout the Commonwealth,
Identify possible sources of PFAS contamination, and

[Evaluate existing approaches to regulating PFAS, including regulatory approaches adopted by other states and the federal government.](#)

Six specific PFAS, including:

- Perfluorooctanoic acid (PFOA)
- Perfluorooctane sulfonate (PFOS)
- Perfluorobutyrate (PFBA)
- Perfluoroheptanoic acid (PFHpA)
- Perfluorohexane sulfonate (PFHxS)
- Perfluorononanoic acid (PFNA)

Other PFAS “as deemed necessary”

5

Other PFAS “as deemed necessary” – does anyone have other PFAS that they want to add?

Virginia PFAS Workgroup - Objectives

May develop recommendations for specific maximum contaminant levels (MCLs) for:

- Perfluorooctanoic acid (PFOA)
- Perfluorooctane sulfonate (PFOS)
- Perfluorobutyrate (PFBA)
- Perfluoroheptanoic acid (PFHpA)
- Perfluorohexane sulfonate (PFHxS)
- Perfluorononanoic acid (PFNA)

And other PFAS “as deemed necessary”

States With Numerical PFAS Limits

Washington

- Banned in firefighting foam and food packaging
- Proposed drinking water standard



Vermont

- 20 PPT (PFAS)
- Drinking water health advisory for 5 PFAS

Massachusetts

- 70 PPT (PFAS)
- State guidance for concentrations of 5 PFAS in drinking water

New Jersey

- Set PFNA standard at 13 ppt
- Weighing proposed standards for: PFOA at 14 ppt, PFOS at 13 ppt

California

- 14 PPT (PFOA)
- 13 PPT (PFOS)
- Drinking water notification guidance

Colorado

- PFOA/PFAS listed as hazardous waste
- 70 PPT (Combined PFOA/PFOS)
- Groundwater quality standard for El Paso County only

Minnesota

- 35 PPT (PFOA)
- 27 PPT (PFOS)
- Health-based guidance values

Michigan

- 70 PPT (Combined PFOA/PFOS)
- State standard for concentrations in drinking water

- New Jersey
- Connecticut
- Maine
- Michigan
- Pennsylvania
- Colorado
- California
- Massachusetts

Bloomberg Environment



This is not up to date!

Overview of Information We Have

U.S. Environmental Protection Agency

"We are moving forward with several important actions, including the maximum contaminant level process, that will help affected communities better monitor, detect, and address PFAS."

-- EPA Administrator, Andrew Wheeler

There are currently no MCLs established for PFAS chemicals. EPA initiated the steps to evaluate the need for an MCL for PFOA and PFOS under the [regulatory determination process](#). However, EPA has issued a [health advisory for PFOA and PFOS](#).

<https://www.epa.gov/pfas/pfas-laws-and-regulations>

Overview of Information We Have

U.S. Environmental Protection Agency

THE BIDEN PLAN TO SECURE ENVIRONMENTAL JUSTICE AND EQUITABLE ECONOMIC OPPORTUNITY

Tackle water pollution in a science-based manner. Biden will focus on improving water quality in a comprehensive way. For example, it is [estimated](#) that up to 110 million American's drinking water could be contaminated with PFAS ... Biden will tackle PFAS pollution by designating PFAS as a hazardous substance, setting enforceable limits for PFAS in the Safe Drinking Water Act, prioritizing substitutes through procurement, and accelerating toxicity studies and research on PFAS.

([HTTPS://JOEBIDEN.COM/ENVIRONMENTAL-JUSTICE-PLAN/](https://joebiden.com/environmental-justice-plan/))

Overview of Information We Have

California

Response Levels

PFOA 10

PFOS 40

Notification Levels

PFOA 5.1

PFOS 6.5

Resource page:

https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/PFOA_PFOS.html

https://www.waterboards.ca.gov/press_room/press_releases/2020/pr02062020_pfoa_pfos_response_levels.pdf

https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/PFOA_PFOS.html

Overview of Information We Have

California



Response Levels Lowered for Water Systems Statewide as PFAS Investigation Continues

New Stricter Standard Established for PFOA and PFOS

February 6, 2020

Contact: Blair Robertson

Blair.robertson@waterboards.ca.gov

SACRAMENTO – The State Water Resources Control Board announced today it will reduce the levels of perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) in drinking water that trigger responses by local water systems.

The Board will set new response levels (RLs) of 10 parts per trillion (ppt) for PFOA and 40 ppt for PFOS. Previously, the RL was 70 ppt for the total concentration of the two contaminants combined.



Today's action follows the State Water Board's August 2019 reduction of the notification levels (NLs) for the two contaminants from 14 to 5.1 ppt for PFOA and from 13 to 6.5 ppt for PFOS. A notification level is a health-based concentration of a contaminant in drinking water that warrants notification and further monitoring and further monitoring and assessment.

Overview of Information We Have

Colorado

Health advisory 70

<https://cdphe.colorado.gov/pfcs/water>



The screenshot shows the header of the Colorado Department of Public Health & Environment website. On the left is the CDPHE logo, which includes a stylized 'C' with a mountain and a sun. To the right of the logo is the text 'COLORADO Department of Public Health & Environment'. Further right is a search bar with the text 'Search' and a magnifying glass icon. Below this is a dark blue navigation bar with white text: 'Home', 'About CDPHE >', 'Public information >', 'Data', 'Health >', and 'Environment >'. Below the navigation bar is a white button with the text 'Report a concern or emergency'.

Perfluorinated compounds in drinking water



Overview of Information We Have

Connecticut

[Action Level](#)

Σ (PFOA, PFOS, PFNA, PFHxS, PFHpA)

70

Does not include (perfluorobutyrate) PFBA

https://portal.ct.gov/-/media/Departments-and-Agencies/DPH/dph/environmental_health/eoha/Toxicology_Risk_Assessment/2018-uploads/Perfluoroalkyl-Substances-PFASs-in-DWHealthConcerns.pdf?la=en

Overview of Information We Have

Massachusetts

[Adopted Regulation 9/16/20](#) Σ (PFOA, PFOS, PFNA, PFHxS, PFHpA, PFDA) 20

Does not include (perfluorobutyrate) PFBA,
Adds PFDA

<https://www.mass.gov/lists/development-of-a-pfas-drinking-water-standard-mcl#final-pfas-mcl-regulations->

Overview of Information We Have

Michigan

[Adopted Regulation 8/3/20](#)

PFOA	8
PFOS	16
PFNA	6
PFHxS	51
PFBS	420
PFHxA	400,000
GenX	370

Does not include (perfluorobutyrate) PFBA,
Adds PFBS, PFHxA, GenX

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<https://www.michigan.gov/som/0,4669,7-192-47796-534660--,00.html>

Overview of Information We Have

Minnesota

Health Based Guidance - Water	PFOA	35
	PFOS	15*
	PFHxS	47

* Minnesota Department of Health Guidance Value Based on available information, MDH developed a guidance value of 0.015 ppb for PFOS in groundwater. A person drinking water at or below the guidance value would be at little or no risk for harmful health effects. MDH does not use guidance values to regulate water quality, but they may be useful for situations in which no regulations exist. MDH develops guidance values to protect people who are most vulnerable to the potentially harmful effects of a contaminant, including those who may be exposed for long periods of time.

<https://www.health.state.mn.us/communities/environment/risk/docs/guidance/gw/pfosinfo.pdf>

<https://www.health.state.mn.us/communities/environment/risk/guidance/gw/table.html>

Overview of Information We Have

New Hampshire

[Adopted Regulation 10/1/19](#)

PFOA	12
PFOS	15
PFHxS	18
PFNA	11

Developed MCLGs

Overview of Information We Have

New Jersey

[Adopted Regulation](#)

PFNA

13

PFOA

14

[Adopted Regulations 6/1/20](#)

PFOS

13

https://www.nj.gov/dep/rules/rules/njac7_10.pdf

https://www.nj.gov/dep/rules/adoptions/adopt_20200601a.pdf

Overview of Information We Have

New York

[Adopted Regulation 7/30/20](#)

PFOA

10

PFOS

10

<https://www.governor.ny.gov/news/governor-cuomo-announces-first-nation-drinking-water-standard-emerging-contaminant-14-dioxane>

Overview of Information We Have

North Carolina

Health Advisory

GenX

140

[Proposed legislation \(HB1175\)](#)

<https://www.ncleg.gov/BillLookUp/2019/hb1175>

Overview of Information We Have

Vermont

[Adopted Regulation 3/17/20](#)

Σ (PFOA, PFOS, PFNA, PFHxS, PFHpA)

20

<https://dec.vermont.gov/sites/dec/files/documents/Water-Supply-Rule-March-17-2020.pdf>

Overview of Information We Have

Other Sources:
ASDWA

State CEC Rule Development & Management
Strategies Toolkit

■ Introduction

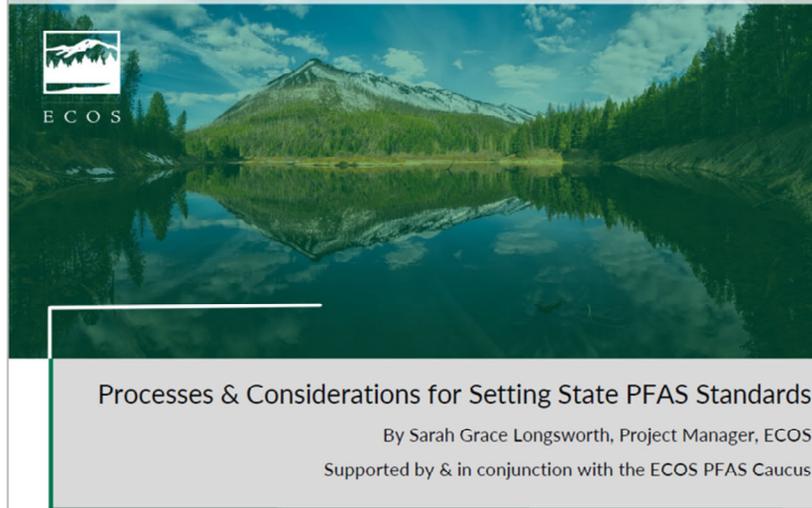
In recent years, state drinking water agencies have found themselves on the front lines of risk assessment, management, and communications for contaminants that have emerged as public concerns—often with considerable uncertainties about toxicity, occurrence, and treatment. In the absence of federal regulations, states have the difficult job of formulating strategies for managing risks for these Contaminants of Emerging Concern (CECs).

CECs are contaminants that are unregulated or are regulated at a level that may no longer be considered adequately protective of human and ecological health. A CEC may be a contaminant that has been newly discovered in the environment or one that has been known about for a long time but is generating increased public attention or interest in the scientific community due to new scientific information about its impacts on public health or the environment. A defining characteristic of CECs is that there is significant uncertainty about the risks they pose, their occurrence in the environment, the level of public exposure, and/or how to effectively treat water to remove the contaminant—often in the context of public alarm.

The Association of State Drinking Water Administrators (ASDWA) worked with a team of state drinking water administrators to develop this toolkit for state drinking water agencies. The toolkit is intended to help these agencies move from a strong signal of potential risk from a CEC in drinking water to managing risk to an acceptable level, potentially including creating a state-specific CEC rule establishing a Maximum Contaminant Level (MCL) or treatment technique. The toolkit draws heavily on participating states' recent experience managing risks from Per and Polyfluoroalkyl Substances (PFAS) but generalizes from this experience to be broadly applicable to other CECs.

Overview of Information We Have

Other Sources:
ECOS



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The Environmental Council of the States

February 2020 white paper

<https://www.ecos.org/documents/ecos-white-paper-processes-and-considerations-for-setting-state-pfas-standards/>

<https://www.ecos.org/pfas/#:~:text=ECOS%20compiled%20information%20on%20state%20PFAS%20standards%2C%20advisories%2C,as%20understand%20and%20communicate%20about%20differences%20in%20guidelines.>

Research Needs and Assignments

Information to collect:

- Enabling legislation/statutes
- Funding for sampling and research that support MCL development
- Regulations

Sources of Information

Where to compile, store

- We will use Google Drive - until I provide directions for sharing on Drive, send files to me

Research Needs and Assignments

California: Andrea Wortzel

Colorado: Jessica Edwards

Connecticut: Jillian Terhune

Massachusetts: Jamie Hedges

Michigan: Mike McEvoy

Minnesota: Wendy Eikenberry (will contact laboratories ~ limits)

New Hampshire: Paul Nyffeler

New Jersey: John Aulbach

New York: Phillip Musegaas

North Carolina: John Aulbach

Vermont: Russ Navratil

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Names added during meeting

Monitoring and detection information will be important for occurrence and monitoring subgroup – share information with Bob's group

Research Needs and Assignments

Other States:

MD has not developed MCLs, but there is activity - Phillip will summarize

ASDWA - everyone review

ECOS - everyone review

US EPA - Phillip Musegaas

Timeframe - research Jan (provide status, findings to date); complete Feb/Mar to prepare and present findings/recommendations to PFAS workgroup at April mtg.

Next meeting - week of Jan 11, preference for Thur 1/14 or Fri 1/15

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Protecting You and Your Environment

Names added during meeting

Is anyone aware of other states that are taking action?

Circulate Doodle poll to subgroup members to determine next meeting date

Nelson Daniel

nelson.daniel@vdh.virginia.gov

804-864 7210 / 804-382-9594 (m)



HB586

Patron: Delegate Guzman (GA 2020)

- The State Health Commissioner to convene a PFAS workgroup,
- Conduct a detailed investigation on current literature and what other states are doing,
- Conduct PFAS occurrence study at no more than 50 waterworks and source waters,
- May develop MCL guidelines
- **Timeline:** December 01, 2021

Potential Issues: No state funding

Did not present, from Oct PFAS Workgroup presentation